

DATASHEET

SDNA-HK

Software Definable Network-Appliance™ with Haivision Kraken™

The SDNA-HK is a highly portable, rugged software programmable communications solution that when paired with Haivision's Kraken™ video transcoder technology yields a rugged video transcoder solution that has no Rival.

The SDNA-HK is a small size, weight, and low power (SWaP) device that is durable enough to withstand the rigors of mobile and portable use in the most austere locations. The SDNA-HK is part of a family of small, low profile appliances that can be used individually or paired with other XC appliances as part of assembling a truly scalable deployable communications capability. Other XC devices include the XC-6300, the XC-3300, the SDNA-XC, and the PSU/UPS.

Haivision Kraken™

Known for high-density tactical live HD video encoding and transcoding, Haivision's Kraken™ can shape video streams for more robust backhaul via data links including satellite (SATCOM), microwave, and the internet, to downstream exploitation systems, such as enterprise distribution networks and mobile devices—where compliance with legacy standards is essential.



Aggregated Situational Awareness

Designed to work in almost any ISR video workflow and supporting HEVC/H.265, H.264, and MPEG-2, Kraken can ingest video from numerous motion imagery sources and formats simultaneously regardless of platform while maintaining synchronized metadata for Command & Control (C2) and Common Operating Picture (COP) systems. Helping with beyond line-of-sight applications with constrained bandwidth, Kraken can encode/transcode multiple video streams with HEVC compression for significant reductions in bitrate while maintaining image quality.

Scalability with other XC Devices

XC products are modular, interoperable, and scalable with other XC devices to meet IP networking requirements of any complexity. The XC devices enable you to create flexible, scalable, secure, software defined small and light sophisticated comprised solutions to meet nearly any mission requirements.

SDN-A Technology

The SDNA-HK is based on our Software Definable Network-Appliance (SDN-A) technology, which allows users to create an individualized IP networking appliance based on the use of Virtualized Networking Functions (VNFs). SDN-As support several different virtual machine hypervisors, along with virtual networking functions from companies such as Cisco, Aruba, Juniper, Palo Alto, and Haivision. When used with Linux based hypervisor, users benefit from the SDNA-XC cellular and Wi-Fi transport technologies.

The Most Powerful Transcoder for Mission-Critical Video

Kraken is a video transcoder for ISR, situational awareness, and field monitoring applications that optimizes video networks by transcoding full motion video(FMV) using the latest compression standards for the highest possible quality, even in environments where network bandwidth is unpredictable or limited.

With Kraken, send the highest quality video and ensure streams meet your target network capacity. Kraken preserves and aggregates MISB and STANAG-compliant KLV metadata, while filtering out unnecessary fields to make the most of available bandwidth. Kraken provides the lowest latency, highest quality real-time video stream transmission while assuring compatibility with downstream processing, exploitation, dissemination systems.

Specifications

- Size: 7.6" x 5" x 1.25" (L x W x H)
- Weight: <2 pounds
- Machined Aluminum enclosure

WAN Technology

- (5) Gigabit routed Ethernet ports
- (2) USB 3.0
- 802.11ac Wi-Fi client and/or Access Point (Optional)
- (1) Built-in 3G/4G/5G cellular radio (Optional)

Environmental

- Operating Temperature: -20°C ~ +70°C
- Storage Temperature: -40°C ~ +85°C
- Operating Humidity: 5% ~ 95%

Configuration

- Supports most commercial vendors' software-based IP networking function and application server based virtual machine technologies
- Supports Intel VT-D and VT-X Technology

SDN-A Technology

- Intel E3950 Atom w/4Cores and 4 Threads
- 8GB RAM
- mSATA, SD Card (internal), or 2.5" SSD
- Mini- Display Port with 4K video support
- 2 USB controllers, 1 CPU based and 1 standalone component (TI based USB Hub)
- Micro USB Console Port (no need for serial cables)

Power

- Wide Range Dirty DC Input: 9 ~ 36 VDC
- Power Consumption: <20 watts (< 25 watts with optional 2.5" SSD drive)
- PSU: 100~240 VAC 50/60Hz

Configuration

- Micro USB console
- Mini Display Port with 4K video output support
- USB 3.0 interfaces for keyboard/mouse

Storage

- Optional 2.5" SSD (up to 15TB)